## **CLAIMS**

- 1. An ARPA-Internet Network Access/Service Provider device comprising:
- 2 a fax gateway including,
- a storage device for storing an e-mail message received from a sender through a data
- 4 communications network, the stored e-mail message being converted to a fax document for
- 5 transmission thereof to a fax recipient having access to a fax device;
- at least one fax modem device for transmitting the fax document to the fax recipient
- 7 through a public switched telephone network,
- 8 wherein the ARPA-Internet Network Access/Service Provider device allows a fax
- 9 recipient to receive e-mail messages by the use of a fax device without requiring computer
- 10 equipment.
- 1 2. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- wherein the storage device further for storing a fax telephone number associated with the fax
- device of the fax recipient and for using the fax telephone number for establishing a call for the
- 4 transmission of the fax document.
- 1 3. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- 2 wherein the storage device for further storing a time-of-day for specifying a range of time during
- which the fax document is transmitted.
- 1 4. An ARPA-Internet Network Access/Service Provider device as recited in claim 1 further
- 2 including a server device for storing a fax telephone number associated with the fax device of
- 3 the fax recipient and for using the fax telephone number for establishing a call for the





- transmission of the fax document, said server device for further storing a time-of-day for 4
- 5 specifying a range of time during which the fax document is transmitted.
- 1 5. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- 2 wherein the storage device for further creating a fax cover page for transmission thereof to the
- 3 fax recipient.
- 1 6. An ARPA-Internet Network Access/Service Provider device as recited in claim 5
- wherein the e-mail message includes an e-mail address and the fax cover page includes a sender 2
- 3 field extracted from the e-mail address.
- 1 7. An ARPA-Internet Network Access/Service Provider device as recited in claim 6
- 2 wherein the ARPA-Internet Network Access/Service Provider devices assigns an e-mail address
- 3 to the fax recipient, the e-mail address being correlated to a fax telephone number identifying the
- fax device and wherein the fax cover page for further including a destination field extracted from 4
- 5 the fax recipient e-mail address.
- An ARPA-Internet Network Access/Service Provider device as recited in claim 7 1 8.
- wherein the e-mail message includes a subject field and the ARPA-Internet Network 2
- Access/Service Provider device for including the e-mail subject field contents in the fax cover 3
- 4 page prior to transmission thereof to the fax recipient.
- An ARPA-Internet Network Access/Service Provider device as recited in claim 1 1 9.
- wherein the storage device for further assigning a mailbox for storage of e-mail messages 2

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- 3 directed to the fax recipient and upon receipt of the e-mail message, for storing the e-mail
- 4 message within the assigned mailbox of the fax recipient.
- 1 10. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- wherein the fax gateway is coupled to the public switching telephone network through one or 2
- 3 more telephone lines.
- 1 11. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- 2 wherein the fax gateway is coupled to the public switching telephone network through a digital
- 3 communications links.
- 1 12. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- wherein the fax gateway is coupled to the data communications network through a digital 2
- 3 communications link.
- An ARPA-Internet Network Access/Service Provider device as recited in claim 1 1 13.
- wherein the storage device is a computer system having a conversion program for causing 2
- 3 conversion of the e-mail message to a fax document.
- An ARPA-Internet Network Access/Service Provider device as recited in claim 13 1 14.
- wherein the storage device is a computer system having an e-mail program for causing storage of 2
- 3 the e-mail message.
- 15. An ARPA-Internet Network Access/Service Provider device as recited in claim 14 1
- 2 wherein the e-mail program and the conversion program reside externally to the fax gateway.



- 1 16. An ARPA-Internet Network Access/Service Provider device as recited in claim 1
- 2 wherein the fax gateway further for receiving a reply fax document from the fax recipient, for
- 3 converting the reply fax document to a reply e-mail message and for transmitting the reply e-
- 4 mail message to the sender.
- 1 17. An method for sending and receiving e-mail messages using a fax device comprising:
- 2 receiving an e-mail message through a data communications network;
- 3 converting the e-mail message into a fax document; and
- 4 transmitting the fax document to a fax recipient thereby enabling the fax recipient to
- 5 receive e-mail messages without access to the data communications network.
- 1 18. A method as recited in claim 17 further including the step of receiving a reply from the
- 2 fax recipient in the form of a reply fax document, converting the reply fax document to a reply e-
- 3 mail message and transmitting the reply e-mail message through the data communications
- 4 network.

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- 1 19. A method as recited in claim 17 further including the step of verifying a destination user
- 2 address for identifying the fax recipient as being a known user.
- 1 20. A method as recited in claim 19 wherein upon unsuccessful verification of the
- 2 destination user address sending a failed message.
- 1 21. A computer readable medium having stored therein computer readable program code
- 2 comprising instructions for performing the following steps:
- 4 receiving an e-mail message through a data communications network;





- 5 converting the e-mail message into a fax document; and
- 6 transmitting the fax document to a fax recipient thereby enabling the fax recipient to
- 7 receive e-mail messages without access to the data communications network.